Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Central Montana Resources, LLC
Well Name/Number: Snowmane No. 6
Location: NE NW Section 8 T13N R29E
County: Petroleum **, MT; Field (or Wildcat)** W/C

Air Quality

(possible concerns)
Long drilling time: No, 10 to 14 days drilling time.
Unusually deep drilling (high horsepower rig): No, a double drilling rig to drill a vertical hole to 4200'Heath Formation well test.
Possible H2S gas production: Slight.
In/near Class I air quality area: No class I air quality area.
Air quality permit for flaring/venting (if productive) Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
_X_ Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____
Comments: No special concerns – using double rig to drill to a vertical hole to 4200' Heath Formation.

Water Quality

(possible concerns)
Salt/oil based mud: No, surface hole will be drilled with freshwater (1% KCL). Mainhole will be drilled with freshwater (1% KCL) and freshwater drilling mud (1% KCL).
High water table: No high water table in the area of review.
Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Flat Willow Creek, about 1/16 of a mile to the west from this location.
Water well contamination: No, no water wells within 1 mile and further in any direction from this location. This well will set 8 5/8" surface casing to 800' and cement to surface. Well will be drill with freshwater mud.
Porous/permeable soils: No, silty sand clay soils.
Class I stream drainage: No, Class I stream drainages nearby. Closest Class I would be Flat Willow Creek, about 2.5 miles to the northeast from this location.

Mitigation:
___ Lined reserve pit
_X_ Adequate surface casing
__ Berms/dykes, re-routed drainage
_X_ Closed mud system
_X_ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____
Comments: 800' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud system to be used on surface hole.

Freshwater mud system (1% KCL) to be used from surface to TD. Freshwater drilled cuttings and mud solids will land farmed with surface owners approval . Drilling fluids will be recycled to the next drilling location. No concerns.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: No stream crossings anticipated.
High erosion potential: No, moderate cut, up to 13.0' and moderate fill, up to 17.7', required.
Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, 300'X250' location size required.
Damage to improvements: Slight, surface use appears to be hilly grassland.
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
X Other Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be from existing county road and ranch trail. Short road to be built from existing well (Snowmane -1,1B &7) access into location, about 2801'. Close loop drilling system will be used. Freshwater drilled cuttings and mud solids will land farmed with surface owners approval. Drilling fluids will be recycled to the next drilling location. No concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Residence, none within 1 mile in any direction from this location.
Possibility of H2S: Slight.
Size of rig/length of drilling time: Small drilling rig/short 10 to 14 days drilling time.

Mitigation:
_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: Operational BOP and adequate surface casing should mitigate any problems. No concerns.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No
Threatened or endangered Species: Threatened or endangered species identified are the Pallid Sturgeon and the Black Footed Ferret. Species of concern are the Greater Sage Grouse and Sprague's Pipit. NH tracker website lists two species of concern, the Black-Footed Ferret and the Greater Sage Grouse.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____
Comments: Private hilly grass surface lands.. No concerns.

Historical/Cultural/Paleontological

(possible concerns)
Proximity to known sites None identified

Mitigation
__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other:_____
Comments: Private hilly grass surface lands. No concerns.

Social/Economic

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: Well is a wildcat, until production is established no social or economic impact can be assessed.

Remarks or Special Concerns for this site

Well is a wildcat vertical hole to 4200' Heath Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/ Steven Sasaki
(title:) Chief Field Inspector
Date: June 30, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology GWIC website
(Name and Agency)
Petroleum County water wells
(subject discussed)
June 30, 2011
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T13N R29E
(subject discussed)

June 30, 2011
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Petroleum County
(subject discussed)

June 30, 2011
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: __ _____
Others present during inspection: __ _____